"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

USSR/Cultivated Plants - General Problems M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82244

Author : Stepanova, M.M.

Inst : Scientific Research Institute of Agriculture in the Extreme North

Title : Effect of Artificial Warming of the Soil on the Crop Yields in Yeniseyskoye Zapolyar'ye

Orig Pub : Byul. nauchno-tekhn. inform. N.-i. in-t s. kh. Krayn. Severa, 1957, No 3, 36-37

Abstract : An experiment is described on the artificial warming of open ground with hot water (industrial heat waste) passing through metal pipes. Data is cited on the yields of agricultural crops on soil with an without warming. Warming the soil to the temperat re of the air or higher by 1-2° contributes to a considerable increase in the yield of agricultural crops. -- N.F. Kravtsova

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

Sibrabova, K. P. Cand. Biolog. Sci.

Dissertation: "Amino-Acid Composition of Proteins in Organs and Tissues under Starvation Conditions and in the Course of Excessive Protein Nutrition." Inst of Nutrition, Acad Med Sci USSR, 24 May 47.

SO: Vechernyaya Moskva, May, 1947 (Project #17836)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STepanova, M.M.

The distribution of methionine-S^{35} in the organism of cancerous mice. M. M. Stepanova. *Voprosy Onkologii* 1, No. 5, 30-2(1955). Mice were injected once with the labeled methionine (I) and other mice were injected repeatedly. Fifteen to 24 hrs. after the injection of I mice were sacrificed and the concn. of the S^{35} in the proteins of the cancers and organs detd. These tests were used as controls. Another set of mice inoculated with Ehrlich carcinoma was injected with a single dose of I and 15-20 hrs. later was sacrificed and the concn. of S^{35} in their tumors and organs detd. similarly. The highest concn. of S^{35} was found in the kidneys, which was followed by the spleen and liver, then by the cancer tissue, in which the S^{35} concn. was 50% that of the kidneys. After repeated injections of large doses of S^{35} its concn. in the cancer tissue rose to 70-90%, as compared with the previous 50% that of kidney. The concn. of S^{35} in the cancer tissue was on a par with that of the liver. On the basis of S^{35} concn., the spleen occupied 4th place. The increase in the concn. of I in the cancer tissue following its repeated injection into the organism is thought to be due to its slow elimination from such tissue. The reduced concn. of S^{35} in the spleen is thought to be brought about by the aplastic changes produced in that organ by the irradiation effects of S^{35}. B. S. Levine

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Lab. Exptl. Therapy, Inst. Oncology, AMS USSR

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.M., IVANOV, I.I.

Vitamin C and aromatic amino acid metabolism in radiation sickness [with summary in English]. Vop.med.khim. 4 no.5: 370-372 S-O '58 (MIRA 11:11)

1. Kafedra biologicheskoy khimii Leningradskogo pediatricheskogo meditsinskogo instituta.

(VITAMIN C, in urine,
eff. of x-rays (Rus))
(AMINO ACIDS, in urine,
aromatic, eff. of x-rays (Rus))
(ROENTGEN RAYS, effects,
on urinary aromatic amino acids & vitamin c (Rus)))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

YUR'YEV, V.A.; STEPANOVA, M.M.

Use of ion exchange resins in the chromatographic determination of amino acids in urine. Lab. delo 7 no.3:11-13 Mr '61. (MIRA 14:3)

1. Kafedra biologicheskoy khimii Leningradskogo pediatricheskogo meditsinskogo instituta.

(URINE--ANALYSIS AND PATHOLOGY)
(AMINO ACIDS) (PAPER CHROMATOGRAPHY)
(ION EXCHANGE)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

BELOGLAZOV, S.M.; Prinimala uchastiye STEPANOVA, M.N., inzh.

Distribution of hydrogen absorbed by steel during its cathodic treatment in acid and the effect of this distribution on the microhardness of steel. Fiz. met. i metalloved. 15 no.6:885-889 Je '63. (MIRA 16:7)

1. Permskiy farmatsevticheskiy institut.
(Steel—Hydrogen content)
(Hardness)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M. N.

"Significance of Capillaroscopy in Chronic Nonspecific suppurative Processes of the Lungs and Pleura." Sub 2 Oct 51, Central Inst for the Advanced Training of Physicians.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N.N., kandidat meditsinskikh nauk.

Case of late removal of a splinter from the heart. Khirurgiia no.12:66-67 D '53. (MLRA 7:1)

1. Iz 1-y khirurgicheskoy kliniki (zaveduyushchiy - zasluzhennyy deyatel' nauki professor B.E.Linberg) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta im. M.F. Vladimirskogo (direktor A.P.Muzychenko).
(Heart--Foreign bodies)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N., kandidat meditsinskikh nauk.

Gigantic ganglioneuromas of the posterior mediastinum in children. Khirurgiia no.8:57-61 Ag. '55. (MLRA 9:2)

1. Iz 2-y khirurgicheskoy kliniki (zav.-dotsent N.I. Makhov) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskogo (dir.-kandidat meditsinskikh nauk P.M. Leonenko)

(GANGLIONEUROMA,
mediastinum, giant, in child, surg.)
(MEDIASTINUM, neoplasms
ganglioneuroma, giant, in child, surg.)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N.

TIKHONOVA, Z.I.; STEPANOVA, M.N., kandidat meditsinskikh nauk; MESHALKIN, Ye.N., kandidat meditsinskikh nauk; BAKULEV, A.N., professor; GULYAYEV, A.V., professor; VOZNESENSKIY, V.P., professor; DMITRIYEV, I.P., professor; OGNEV, B.V., professor; VAZA, D.L., professor; PETROV, B.A., professor, predsedatel'; DOROFEYEV, V.I., sekretar'.

Minutes of the session of the Surgical Society of Moscow and Moscow Province of June 27, 1952. Khirurgiia no.3:84-88 Mr '53. (MLRA 6:6)

1. Khirurgicheskoye obshchestvo Moskvy i Moskovskoy Oblasti.
(Heart--Surgery) (Cardiovascular system--Surgery)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N.

ROZENSHTRAUKH, L.S., kandidat meditsinskikh nauk; STEPANOVA, M.N., kandidat meditsinskikh nauk

Bronchography in a pediatric surgical hospital. Khirurgiia 33 no.4: 83-84 Ap '57. (MIRA 10:7)

1. Iz kafedry rentgenologii (zav. - prof. Yu.N.Sokolov) TSentral'nogo instituta usovershenstvovaniya vrachey (dir. V.P.Lebedeva) i 1-y khirurgicheskoy kliniki (zav. - prof. N.I.Makhov) Moskovskogo oblastnogo klinicheskogo instituta (dir. P.M.Leonenko).

(BRONCHI, radiography in child.)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N.

Two cases of removal of gigantic lung cysts in children. Sov.med. 22 no.2:129-130 F '58. (MIRA 11:4)

1. Iz 2-y khirurgicheskoy kliniki (zav. - prof. Ya.G.Dubrov) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta nauki M.F.Vladimirskogo.
(LUNGS, cysts
giant cysts in child., surg. (Rus))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N., starshiy nauchnyy sotrudnik

Surgery of pyloric stenosis in children [with summary in English]. Khirurgiia 34 no.5:76-81 My '58 (MIRA 11:7)

1. Iz Klinicheskogo khirurgicheskogo otdeleniya (zav. M.N. Stepanova) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskogo (dir. P.M. Leonenko).
(PYLORUS, stenosis
in inf., surg. (Rus))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N. (Moskva, G-151, Kutuzovskiy prosp., d.22, kv.29)

Two cases of removal of a needle from the heart. Grud. khir. 1 no.3:108-110 My-Je '59. (MIRA 15:3)

1. Iz vtoroy khirurgicheskoy kliniki (zav. - chlen-korrespondent AMN SSSR prof. N.N. Blokhin) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskogo (dir. P.M. Leonenko).
(HEART--FOREIGN BODIES)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N., starshiy nauchnyy sotrudnik

Bleeding polyps of the large intestine in children, according to data from the Moscow Province Research Clinical Institute from 1952 to 1957. Khirurgiia 35 no.4:83-86 Ap '59. (MIRA 12:8)

1. Iz Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.Vladimirskogo (dir. P.M.Leonenko).
(INTESTINE, LARGE, neoplasms
bleeding polypi, in child., statist. (Rus))
(POLYPI, in inf. & child
large intestine, statist. (Rus))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N.; BORISOVA, N.F., kand.med.nauk

Acute diffuse suppurative peritonitis as a complication of chronic nephrosonephritis in children. Pediatriia 38 no.12: 17-20 '60. (MIRA 14:2)

1. Iz 2-y khirurgicheskoy kliniki (zav. - prof. Ya.G. Dubrov) i pediatricheskoy kliniki (zav. - prof. M.I. Olevskiy) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskogo (dir. - kand.med.nauk P.M. Leonenko).
(KIDNEYS--DISEASES) (PERITONITIS)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N.

Surgical treatment of thrombophlebitic splenomegaly in childhood. Pediatriia 39 no.2:19-23 F '61. (MIRA 14:2)

1. Iz 2-y khirurgicheskoy kliniki Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskogo (dir. - kand.med.nauk P.M. Leonenko).
(SPLEEN--DISEASES) (VEINS--DISEASES)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N.; ODINOKOVA, V.A.; ZABAVSKAYA, E.A.

Neuroblastomas of the vertebrocostal fissure in children.
Khirurgiia no.9:81-85 '61. (MIRA 15:5)

1. Iz 2-y khirurgicheskoy kliniki (zav. - prof. Ya.G. Dubrov), patomorfologicheskogo (i. o. zav. A.A. Naumova) i rentgenologicheskogo (zav. - dotsent A.I. Petrov) otdelov Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F. Vladimirskogo.
(NERVOUS SYSTEM--TUMORS)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M. N.; ODINOKOVA, V. A.

Tumors in children; according to data of the Moscow Province Scientific Clinical Research Institute from 1951-1960. Vop. onk. 8 no.1:33-38 '62. (MIRA 15:2)

1. Iz detskogo khirurgicheskogo otdeleniya (zav. - st. nauch. sotr. M. N. Stepanova) i patologoanatomicheskogo otdela (i.o. zav. - A. A. Naumova) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta im. M. F. Vladimirskogo.

(TUMORS) (CHILDREN—DISEASES)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N., kand.med.nauk; ODINOKOVA, V.A., kand.med.nauk (Moskva, Poltavskaya ul., d.38/25, korp.2, kv.17)

Artesia of the biliary tract in infants. Vest.khir. 89 no.11: 100-107 N '62. (MIRA 16:2)

1. Iz Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta (dir. - P.M. Leonenko), khirurgicheskoy i detskoy kliniki (zav. - prof. Ya.G. Dubrov i prof. M.I. Olevskiy) i patologoanatomicheskogo otdela (zav. - prof. S.B. Vaynberg).
(BILIARY TRACT—ABNORMITIES AND DEFORMITIES)
(INFANTS—DISEASES)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N., kand.med.nauk; ODINOKOVA, V.A., kand.med.nauk

Two cases of giant tumors of the thymus gland in children. Pediatriia 42 no.1:62-63 Ja'63. (MIRA 16:10)

1. Iz 2-y khirurgicheskoy kliniki (zav. - prof. Ya.G.Dubrov) i patologoanatomicheskogo otdela (ispolnyayushchiy obyazannosti zaveduyushchego A.A.Naumova) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.Vladimirskogo (dir. P.M.Leonenko).
(THYMUS GLAND—TUMORS) (CHILDREN—DISEASES)

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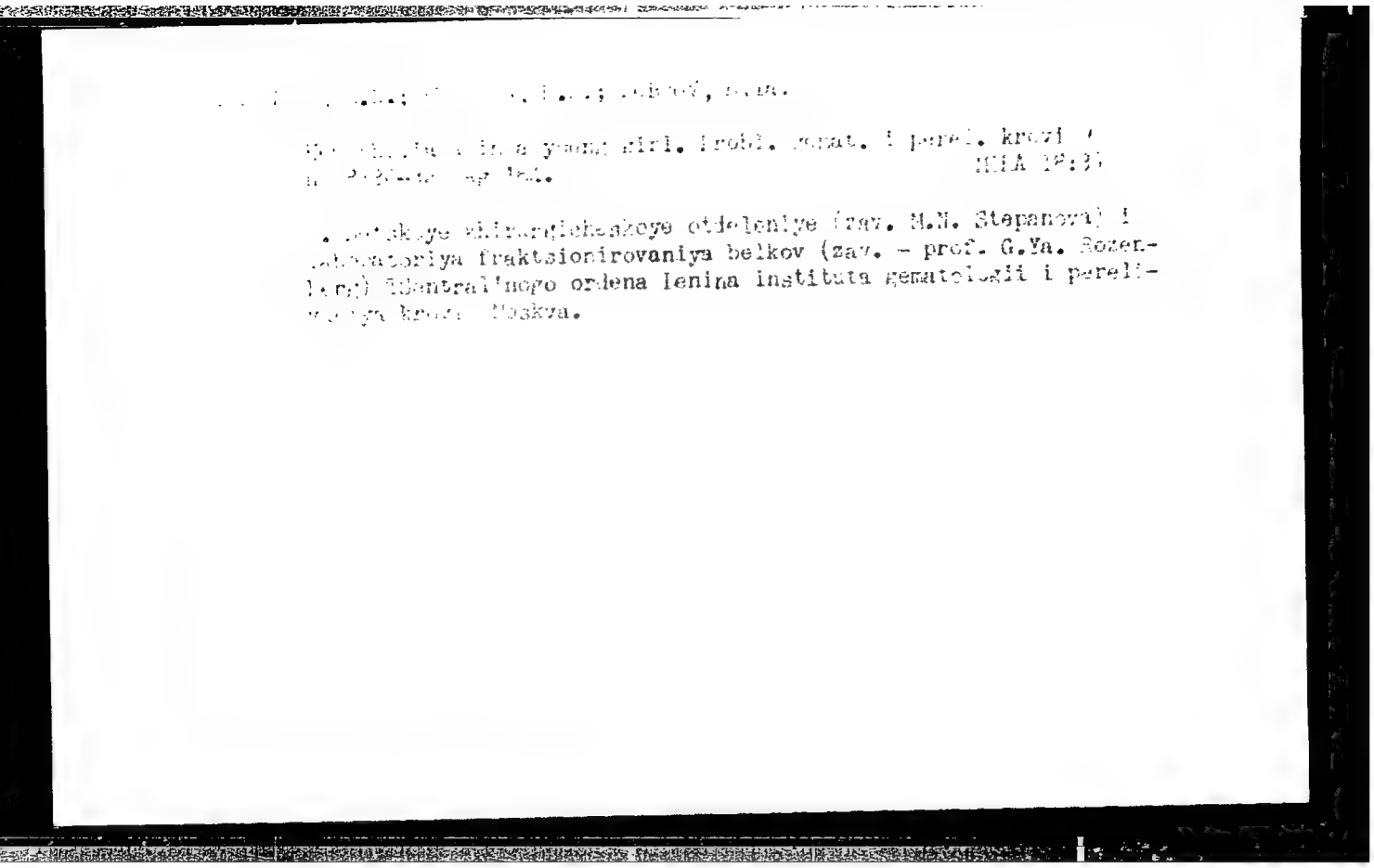
"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9



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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.N., kand. med. nauk; DUBROV, E.Ya.

Clinical aspects and treatment of hemophilia in children. Sov. med. 27 no.3:104-109 Mr '64. (MIRA 17:11)

1. Detskoye khirurgicheskoye otdeleniye (zav. M.N. Stepanova) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni Vladimirskogo.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

YESIPOVA, I.K., prof.; STEPANOVA, M.N.; ROSHAL', L.M.

Clinicomorphological characteristics of lobar emphysema in newborn infants. Sov.med. 28 no.12:77-81 D '65.
(MIRA 18:12)

1. Klinika detskoy khirurgii (zav. otdeleniyem M.N.Stepanova) i patomorfologicheskiy otdel (zav. - prof. I.K.Yesipova) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.Vladimirskogo (direktor P.M.Lebenko).

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M. P.

Stepanova, M. P.

"The Development of the Pelvic Skeleton in the Embryonic Period of Man."
Min Health RSFSR. Stalingrad State Medical Inst. Stalingrad, 1955.
(Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya letopis', No, 27, 2 July 1955

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.P.

Clearing factor and heparin in the blood in arteriosclerosis and the influence on these indices of iodine therapy. Terap.arkh. no.7:30-34 Jl '62. (MIRA 15:8)

1. Iz kafedry terapii No.1 (zav. - prof. G.M. Shershevskiy) Novokuznetskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey.
(HEPARIN) (ARTERIOSCLEROSIS) (IODINE--THERAPEUTIC USE) (LIPOTROPIC FACTORS)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.P.

Effect of vitamin B_{12} on the blood clearing factor and heparin in atherosclerosis. Terap. arkh. 34 no.12: 48-52 D'62.
(MIRA 16:6)

1. Iz 1-y kafedry terapii (zav. - prof. G.M.Shershevskiy) Novokuznetskogo Gosudarstvennogo instituta dlya usovershenstvovaniya vrachey (rektor - dotsent G.L.Starikov)
(ARTERIOSCLEROSIS) (CYANOCOBALAMINE)
(LIPOPROTEIN LIPASE) (HEPARIN)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.P.

Clearing factor and its relation to the development of athero-sclerosis; survey of foreign literature. Kardiologiia 2 no.6: 82-86 N-D'62. (MIRA 17:3)

1. Kafedra terapevticheskoy kliniki (zav. - prof. G.M. Snarskiy) Novokuznetskogo instituta usovershenstvovaniya [illegible] vrachey.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

Stepanova, M.V.

18 18 6

The influence of lead and antimony upon the properties of α-brass (type L-68). M. V. Mal'tsev, M. V. Stepanova and T. I. Dubrovina. *Issledovanie Splavov Tsvetnykh Metallov, Akad. Nauk S.S.S.R., Inst. Met.* 1, 117 (1955). 3 Struct

Brass with 32% Zn was alloyed with 0.03-0.30% Pb and 0.02-0.30% Sb, and the mech. properties of the alloys obtained were measured. It was found that the high-temp. properties had definitely become worse, as any hot-working was rendered extremely difficult, if not impossible. Sb alone imparts at room temp. a brittleness which, however, is somewhat compensated by the Pb, which renders the brass more plastic. If such brass is cast, an Sb-rich phase will become occluded in the Pb which precipitates. In annealed alloys, one recognizes along the grain boundaries colored layers which contain Sb, which are sepd. from each other by dark Pb layers. 18

Werner Jacobson

PB MT

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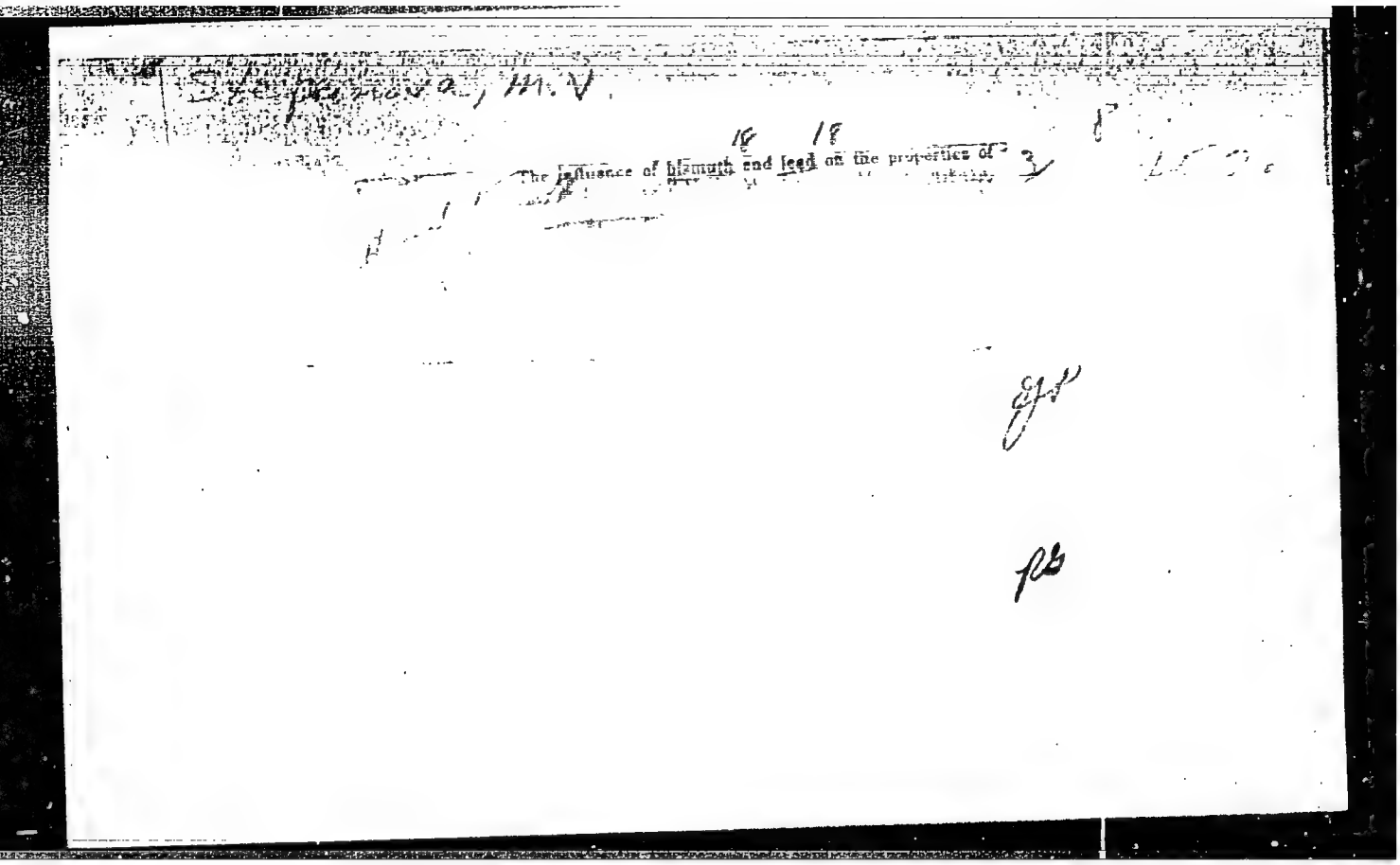

The influence of bismuth and lead on the properties of

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

E-4

Category : USSR/Solid State Physics - Systems

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1154

Author : Glazov, V.M., Zakharov, M.V., Stepanova, M.V.
Title : Plotting the Limited-Solubility Surface in a Ternary System by Using the Micro-Hardness Method.

Orig Pub : Izv. AN SSSR, Otd. tekhn. n., 1956, No 1, 162-164

Abstract : Description of methods for preparation of alloys of Cu with Cr and Zr and measuring the micro-hardness. The solubility boundary of Cr and Zr in Cu and the relative influence of these additives and their solubility in Cu were determined for the temperature range 700 -- 1000° from the flexure of the micro-hardness vs. additive concentration curve.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.V.

Met

3

•Investigation of the Copper Chromium Zirconium Equilibrium Diagram.• M. V. Stepanova, M. V. [illegible] and V. M. Glazov (*Metallovedenie i Obrabotka Metallov*, 1958, (3), 23–27).—[In Russian]. Z. *et al.* studied the Cu corner of the diagram up to the limits 3·5 wt.-% Cr and 3·5 wt.-% Zr. 200-g. specimens of each of 60 alloys were prepared in a C-resistance furnace from M1 electrolytic Cu (99·99%), Cu–6·91% Cr, and Cu–11·1% Zr hardener alloys. The melts were cast in heated cast-Fe moulds, the ingots given 50% reduction by rolling at 900° C., and cut into the required number of specimens. The microstructure of specimens quenched from temp. in the range 500° to [illegible] determined after etching in a 3% soln. of $FeCl_3$ in 10% HCl. Polished sections show that with increasing temp. the α phase field increases in area, reaching a max. at [illegible] extending roughly to the 1% Cr, 1% Zr lines). At 20[illegible] and 600° C. the other fields present are [illegible] $CrZr_2$), (α + Cr + Cr_2Zr), and (α + Cr_2Zr + Cu_3Zr). At 900° C., the two-phase regions broadened considerably, and the microstructure of Cu–1% Cr–1% Zr alloy showed a dark constituent, presumably a ternary (α + Cr + Cr_2Zr) eutectic, while both a binary (α + Cu_3Zr) eutectic (dark, fine structure) and a ternary (α + Cu_3Zr + Cr_2Zr) eutectic (dark, fine structure) were observed in the Cu–1% Cr–3% Zr alloy. At 940° C., the latter ternary eutectic began to melt, and the (α + Cr_2Zr + Cu_3Zr) field was replaced by (α + Cr_2Zr + L), (α + L), and

1/2

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1 RL

Zakharov, M. V. [illegible]

$(\alpha + Cu_2Zr + L)$ regions. At 1000° C. the $(\alpha + Cu_2Zr + L)$ region disappeared and the $(\alpha + Cr + Cr_2Zr)$ region was replaced by $(\alpha + Cr + L)$, $(\alpha + L)$, and $(\alpha + Cr_2Zr + L)$ regions. At 1010° C., the two $(\alpha + L)$ fields merged into one.—G. V. E. T.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

Stepanova, M. V.

Neutralizing the Deleterious Effect of Lead on Copper and Brasses. V. M. Matisev, V. M. Teplinskaya, and M. V. Stepanova. *Sovet. Metally*, 1956, (7), 63–72; *Referat. Zhur., Met.*, 1957, (3), 277).—[In Russian]. Means of neutralizing the harmful effect of Pb on Cu, α-brasses, and (α + β)-brasses were studied by introducing small quantities (0·05–0·3%) of Ce, Cr, and Ca in the form of master alloys. The microstructures of the alloys revealed that the introduction of the addn. had altered the chem. character of the grain-boundary region and had caused a change in the order of crystn. and distribution of the structural constituents. In place of the low-m.p. Pb, new precipitates appeared at the grain boundaries, accompanied by a sharp rise in the mech. properties and workability of the alloys at both room and elevated temp. The optimum quantities of Ce, Cr, and Ca were determined. As a result of prodn.-scale tests, it was proved possible to eliminate the harmful effect of Pb by neutralizing addn. under works conditions.

6

1-4E2c.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M. V.

27 28

1. Copper corner of the constitution diagram copper-chromium-zirconium. M. V. Zakharov, M. V. Stepanova, and V. M. Glazov. M. I. Kalinin Inst. Nonferrous Metals and Gold, Moscow. *Tsvetnye Metally i Obrabotka Metal.* 1957, No 3, 23-7 of (4. 51 10025 Differential thermal analyses and microhardness measurements were made on 18 Cu-base alloys ranging from 0.5 to 3.0% Cr and from 0.25 to 3.0 Zr, usually in steps of 0.5%. Pure Cu was used as the standard and the heating rate was 4 to 5°/min. The temps. of various eutectic reactions were: α + Cr + Cr_2Zr, 980°; α + Cr_2Zr + Cu_2Zr, 935°; α + Cr_2Zr, 1020°. The soly. of Cr and Zr at various temps. was detd. by microhardness measurements with app. PMT-3 with a 10-g. load. The hardness increased rapidly with increasing alloy content in the region of solid soly. but it leveled off when the soly. limit was reached. The max. soly. occurred when the Cr and Zr contents were almost equal and the corresponding Cu contents were: 700°, 99.4%; 800°, 99.0; 900°, 98.6; 940°, 98.3; 1000°, 98.0. Addns. of Zr markedly increased the soly. of Cr in Cu, but addns. of Cr had little effect on the soly. of Zr. The quasi-binary section Cr-Cr_2Zr was detd. out to 6% Cr_2Zr. Other temp.-compn. sections were detd. for alloys contg. 0.5% Cr, 0.5 Zr, 2 Cr, 2 Zr, and 95 Cu. A. G. Guy.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.V.

24-9-20/33

AUTHORS: Glazov, V. M., Zakharov, M.V. and Stepanova, M. V. (Moscow)

TITLE: Influence of the phase composition on the heat resistance of alloys of the system copper-chromium-zirconium. (Vliyaniye fazovogo sostava na zharoprochnost' splavov sistemy med'-khrom-tsirkoniy).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.9, pp. 123-126 (USSR)

ABSTRACT: Development of new high temperature alloys is based on studying the diagram of state and mainly the diagram of composition-heat resistance, which is the basis of the modern physico-chemical theory of heat resistance. Of particular interest are such diagrams relating to complex metallic systems, containing three, four or more components. In this paper the copper angle of the diagram, copper-chromium-zirconium, is investigated and the influence is studied of the phase composition on the heat resistance of chromium-zirconium bronzes. In earlier work (Refs.2-4) the authors established, on the basis of microscopic and thermal analyses and measurement of the microhardness of the individual structural components, that the copper angle of the copper-chromium-zirconium diagram (up to 3.5% Cr and 3.5% Zr) is characterised in the solid state by

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Influence of the phase composition on the heat resistance of alloys of the system copper-chromium-zirconium.

the six-phase ranges α; (α + Cr); (α + Cr + Cr_2Zr); (α + Cr_2Zr);)α + Cr_2Zr + Cu_3Zr); (α + Cu_3Zr) and that in the ternary system a quasi-binary section Cu-Cr_2Zr exists which represents the binary diagram of the eutectic type with a eutectic transformation temperature of 1020°C; this section sub-divides the complex ternary diagram into two elementary ternary diagrams of the eutectic type with limited solubility in the solid state. Furthermore, they established that an area exists of uniform solid solutions of Cr and Zr in copper at various temperatures. The heat resistance (long duration hardness) of Cu-Cr-Zr alloys was investigated along three polymetric cuts: the quasi-binary section Cu-Cr_2Zr, the section of the ternary diagram for a variable Zr content and a constant (0.5%) Cr content and, finally, the section of the ternary diagram with a variable Cr content and a constant (0.5%) Zr content. All these sections of the diagrams are reproduced in the top part of the Figs.2, 3 and 4. For evaluating the heat resistance of the alloys, the 30 sec and 60 min hardness values were determined at

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

SOV/136/58-8-15/27

AUTHORS: Zakharov, M.V., Karpenko, L.I. and Stepanova, M.V.

TITLE: Relation Between the Tensile Strength and Hardness for Some Copper Alloys at High Temperatures (Sootnosheniye mezhdu predelom prochnosti na razryv i tverdost'yu dlya nekotorykh mednykh splavov pri vysokikh temperaturakh).

PERIODICAL: Tsvetnyye Metally, 1958, Nr.8, pp.64-67 (USSR)

ABSTRACT: Hardness determination can form a rapid method of evaluating the short-term tensile strength of metals and alloys if the relation between the two is known. Although linear relations have been found for some ferrous alloys (Refs.5,6) the data for non-ferrous alloys is insufficient. The authors have studied these relations for binary (Cu-Al, Cu-Mn, Cu-Cr, Cu-Zr), ternary (Cu-Ni_2S, Cu-NiAl, Cu-Cr-Zr, Cu-Ni-Be) and quaternary (Cu-Ni-Be-Zr, Cu-Ni-Be-Cd) copper alloys at 600 and 800°C. Altogether 70 alloys were made from electrolytic copper and the appropriate alloys. All alloys were predeformed in the hot state to 50%. Some were binary and ternary alloys tested in the annealed state (annealing at 800°C for 50-70

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Relation Between the Tensile Strength and Hardness for Some Copper Alloys at High Temperatures.

hours); others ternary and quaternary in the heat-hardened state (quenching from 1000°C into cold water followed by 5 hours tempering at 475°C). A 2-ton Amsler press with a loading rate of 20 mm/min. was used for tensile tests, hardness being determined by indentation of a 5-mm radius hemisphere for 30 seconds and all test pieces being heated for 15 minutes in a furnace at the test temperature and soaked for 5 minutes. The results for binary alloys at 800°C (Table 1), for Zr-Cr-Zr alloys at 600 and 800°C (Table 2 and Fig.1) and for Cu-Ni-Be, Cu-Ni-Be-Zr and Cu-Ni-Be-Cd at 600 and 800°C (Table 3 and Fig.2) show a satisfactorily linear hardness vs strength relation, and hot hardness tests are recommended as a first evaluation of hot strength. The compositions of the alloys are given in the tables.

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SOV/136-58-8-15/27

Relation Between the Tensile Strength and Hardness for Some Copper Alloys at High Temperatures.

There are 2 figures, 3 tables and 6 references, 4 of which are Soviet and 2 English.

1. Copper alloys--Mechanical properties 2. Copper alloys--Temperature factors 3. Copper alloys--Test results

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86698

18.7510 1449, 1454

S/180/60/000/006/008/030
E021/E335

AUTHORS: Glazov, V.M. and Stepanova, M.V. (Moscow)

TITLE: The Chemical Interaction Between the Alloying Components in Copper-based Ternary Solid Solutions

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, No. 6, pp. 61 - 64

TEXT: An investigation of the ternary copper-chromium-zirconium and copper-nickel-beryllium systems which form the molecules Cr_2Zr and NiBe was carried out. These systems are of interest from a practical point of view since high conductive heat-resistant alloys are prepared from them. Microhardness values were taken of the quenched solid solutions of various compositions along sections, as shown in Fig. 1, intersecting the quasi-binary Cu-Cr_2Zr and Cu-NiBe sections. Samples were rolled with 50% deformation, held at 1 000 °C for two hours and quenched in cold water. Sections were then prepared for microhardness testing, removing the cold work on the

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E021/E335

The Chemical Interaction Between the Alloying Components in Copper-based Ternary Solid Solutions

surface by etching in 3% ferric chloride - 10% aqueous hydrochloric acid solution. The results are shown in Figs. 2 and 3, where microhardness values are plotted against composition. There are minima in all the curves at the compositions corresponding to the compounds Cr_2Zr and NiBe. This can be explained by the fact that the lattice is distorted to a lesser degree when the chemical compounds are present than when the solute atoms are in a disordered arrangement. There are 3 figures, 1 table and 5 Soviet references.

SUBMITTED: April 23, 1960

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

S/180/62/000/003/005/016
E111/E152

AUTHORS: Glazov, V.M., Stepanova, M.V., and Chuprakova, M.V. (Moscow)

TITLE: Contribution to the problem of the reaction between dissolved components in ternary solid solutions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo. no.3, 1962, 58-62

TEXT: Anomalies observed in the Al-Mg-Si system (Ref.2: V.G. Kuznetsov, Ye.S. Makarov, DAN SSSR, 3, 1939, 23) prompted the authors to investigate in detail the micro-hardness and electrical conductivity of solid solutions in the systems Al-Mg-Si (I), Al-Mg-Ge (II), Cu-Cr-Zr (III) and Cu-Ni-Be (IV). (I) was chosen to supplement available data for ternary systems at high temperatures; (II) to elucidate the nature of the reaction between magnesium and germanium; and (III) and (IV) for the above reasons and because of their possible application as heat-resisting alloys with a high electrical conductivity. The sections with 99 and 99.5 at.% Al were studied in systems (I) and (II)

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Contribution to the problem of ...

respectively; those with 95.5 at.% Cu in (IV); and with 1 at.% Cu and 0.6 Zr in (III). Cast alloys were deformed and heat treated. Polished sections and conductivity test pieces were then prepared. The results indicate that there is chemical reaction between the alloying elements in ternary solid solutions which is especially marked when the ratio of alloying components corresponds to the appropriate compound. The nature of the property-composition diagrams obtained can be explained on the assumption that the chemical reaction leads to lattice disturbances localized at definite places, the distortion of the lattice as a whole being less than if the phenomenon was of totally random character.
There are 4 figures.

SUBMITTED: January 2, 1962

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

S/020/62/144/003/019/030
B119/B101

AUTHORS: Glazov, V. M., and Stepanova, M. V.

TITLE: Chemical interaction between nickel and manganese at different temperatures in ternary solid solutions on the basis of copper

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 3, 1962, 565-568

TEXT: Alloys consisting of 90 and 95 at% Cu and varying amounts of Ni and Mn (obtained from the pure metals by melting in evacuated quartz ampoules) were analyzed chemically and subjected to microhardness investigations after previous thermal treatment. This consisted of: tempering ground samples in vacuo at 900, 700, and 500°C for 2, 15, and 30 hr, respectively, and hardening the samples heated to 900°C in water, or cooling the samples treated at 700 and 500°C in air. The microhardness measured was graphically compared with the chemical composition: The microhardness of samples tempered at 900°C increases with increasing Mn content slowly

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Chemical interaction between...

and almost linearly. The curves for the samples tempered at 700 and 500°C show a minimum microhardness at the point of equiatomic amounts of Ni and Mn (corresponding to the compound NiMn) and a minimum of microhardness with a maximum on each side of it (particularly distinct in samples tempered at 500°C). Thus, the compound NiMn dissolved in Cu is undissociated at 500°C. An increase in the temperature of heat treatment leads to increasing dissociation of the compound, which is complete at 900°C. There are 3 figures. The most important English-language references are: R. B. Hill, H. J. Axon, D.Phil, J. Inst. of Metals, 83, 7, 321 (1954-1955). M. Hansen. Constitution of Binary Alloys, N. Y. - - Toronto-London, 1958.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences USSR). Institut tsvetnykh metallov im. M. I. Kalinina (Institute of Nonferrous Metals imeni M. I. Kalinin)

PRESENTED: February 5, 1962, by I. I. Chernyayev, Academician

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

Chemical interaction between...

S/020/62/144/003/019/030
B119/B101

SUBMITTED: December 20, 1961

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APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ZAKHAROV, M.V.; PUTSYKIN, G.G.; STEPANOVA, M.V.; TIKHONOV, B.S.; VORONTSOVA, L.A.

High strength copper conductor alloys. Issl. splav. tsvet. met. no.4:239-244 '63. (MIRA 16:8)

(Copper alloys—Electric properties)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ACCESSION NR: AP4009847 S/0149/63/000/006/0131/0135

AUTHORS: Stepanova, M. V.; Mogilevskaya, V. Ye.

TITLE: The effect of deformation of a solution upon the recrystallization of Al-Cu alloys

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1963, 131-135

TOPIC TAGS: aluminum copper alloy, annealing, deformation, tempering, aging, crystallization, crystallization center, recrystallization, dispersion, solid solution, heat resistance, two phase alloys

ABSTRACT: The effect of aging of Al-Cu alloys on the temperature of initial recrystallization was studied. Eleven samples containing from 0 to 7% copper were prepared. These were homogenized for 8 hours at 500C and then rolled at the same temperature with a 33% reduction. The hot blanks were annealed for 30 minutes at 400C, followed by air cooling. The subsequent rolling was conducted in the cold to a thickness of 0.5 mm, with intermediate tempering according to an identical regimen. The bands were cut in two and subjected to different thermal treatment. The first regimen consisted in stepwise annealing for a duration of approximately 27 hours, during which the temperature was staggered from 600C down to room

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ACCESSION NR: AP4009847

temperature. In the second regimen the bands were heated to 500C, followed by annealing in water, a four-day aging period, and then by cold rolling with an 80% reduction. These Al-Cu alloy samples were subjected to thermal treatment for 30 minutes at various temperatures until the appearance of pinpoints on a Debye crystallogram, recorded as the thermal point of initial crystallization (TPIC). In samples treated according to the first regimen, the thermal point of initial crystallization increased from 230 to 255C with an increase of copper in the alloy from 0 to 0.84%. A further increase of copper up to 7% caused a gradual drop of the TPIC to 190C. In the samples treated by the second regimen the TPIC temperatures continue to increase from 230C to 315C with increasing copper content in the alloy from 0 to 7%. A microscopic examination of the first series of samples revealed microdispersed inclusions of $CuAl_2$ within the grains as well as along their boundaries in the alloy specimens containing 0.53 - 1.3% copper. A further increase in the copper content caused the $CuAl_2$ inclusions to increase in size and to become coarsely dispersed. The microscopic picture of the samples of the second series revealed a finely dispersed $CuAl_2$ phase, which increased all the way with higher copper content in the alloy. The authors assume that the particles of the liberating $CuAl_2$ phase may inhibit the development of the centers of recrystallization. It was also found that the relative heat resistance of the various Al-Cu alloys, as determined on the basis of their lasting hardness at 300C, runs almost

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ACCESSION NR: AP4009847

parallel to their TPIC. Orig. art. has: 1 picture, 1 table, and 2 charts.

ASSOCIATION: Moskovskiy institut stali i splavov, Kafedra metallovedeniya tsvetny*kh, redkikh i radioaktivny*kh metallov (Moscow Institute of Steel and All Alloys, Department of Metallurgy of Nonferrous, Rare, and Radioactive Metals)

SUBMITTED: 00 DATE ACQ: 07Feb64 ENCL: 00

SUB CODE: ML NO REF SOV: 005 OTHER: 001

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ACCESSION NR: AT4001240 S/3031/63/000/035/0233/0238

AUTHORS: Zakharov, M. V.; Stepanova, M. V.; Karpenko, L. I.; Gorlenko, N. P.; Mogilevskaya, V. Ye.

TITLE: Effect of composition on recrystallization temperature and heat resistance of copper alloys

SOURCE: Gosudarstvenny*y institut tsvetny*kh metallov. Sbornik nauchny*kh trudov. Moscow, no. 35, 1963, 233-238

TOPIC TAGS: heat resistance, recrystallization temperature, copper chromium alloy, copper iron alloy, copper chromium zirconium alloy, copper nickel beryllium alloy, copper nickel aluminum alloy, copper nickel, silicon alloy

ABSTRACT: To check on the hypothesis that heat resistant alloys have high temperature recrystallization levels, exceeding their working temperatures, as is the case for Cu-Sn and Cu-Zn alloys (M. V. Zakharov, Collection Issledovaniye splavov tsvetny*kh metallov (Investigation of Nonferrous Alloys, AN SSSR, 1955), the authors compared the dependence of the start-of-recrystallization temperature

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ACCESSION NR: AT4001240

and the heat resistance on the composition of copper alloys, and established the presence of such a dependence in the systems Cu-Cr, Cu-Fe, Cu-Cr-Zr, Cu-Ni-Be, Cu-Ni-Al, and Cu-Ni-Si. The temperature of the start of the recrystallization increases with increasing concentration of the alloying elements in the solid-solution region, reaches a flat maximum in the two-phase region, and then again decreases smoothly. The curves of the start-of-recrystallization temperature and the long-term hardness against the composition are similar in first approximation, if the long-term hardness is determined at temperatures that exceed the temperature of the start of recrystallization. The maximum heat resistance and the minimum temperature of the start of recrystallization lie in the region of weakly-heterogeneous aging alloys. The close connection between the heat resistance of an alloy and recrystallization is fully confirmed by the experimental data obtained. Orig. art. has: 7 figures.

ASSOCIATION: Gosudarstvenny*y institut tsvetny*kh metallov (State Institute of Nonferrous Metals)

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

L 37185-66 EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM

ACC NR: AP6016334 (N) SOURCE CODE: UR/0149/65/000/006/0106/0113

AUTHORS: Zakharov, M. V. (Professor); Korolev, F. V.; Chizhov, S. I.; Tikhonov, B. S.; Stepanova, M. V.; Sliozberg, S. K.

ORG: Moscow Institute of Steel and Alloys, Chair for the Metallurgy of Nonferrous, Rare, and Radioactive Metals (Moskovskiy institut stali i splavov, Kafedra metallovedeniya tsvetnykh, redkikh i radioaktivnykh metallov)

TITLE: New transmission copper alloys, their alloying principles, properties, and uses

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1965, 106-113

TOPIC TAGS: METAL HEAT TREATMENT, WELDING, THERMAL STABILITY, copper alloy, nickel containing alloy, chromium containing alloy / Br.NBT copper alloy, Mts-5A copper alloy

ABSTRACT: The alloying techniques, properties at different temperatures, and stability under contact welding of a number of transmission copper alloys were investigated. The investigation supplements the results of V. M. Glazov, M. V. Stepanova, and M. V. Chuprakova (Izv. AN SSSR, OTN, No. 3, 1962). The experimental results are summarized in graphs and tables (see Fig. 1). It was found that the most thermostable transmission alloys are Mts-5A and Br.NBT, situated on the quasi-binary sections of Cu--Cr_2Zr

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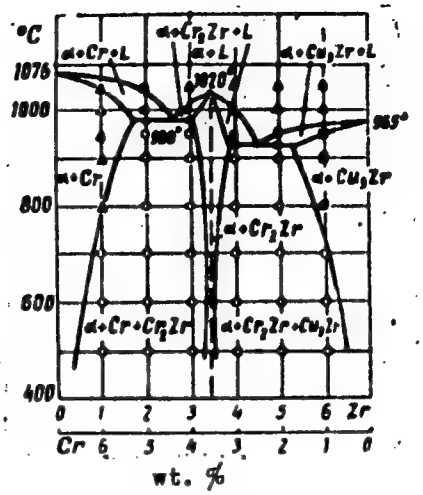

Fig. 1. Polythermic cross section, perpendicular to the quasi-binary section Cu--Cr_2Zr at 93% Cu.

and Cu--NiBe respectively. The most effective thermal treatment of the alloys consists of quenching which results in the formation of a supersaturated solution, followed by cold deformation of 40--60%, and annealing at 0.55 T_{mp} of the alloy. The best alloy for spot welding was found to be the alloy Mts-5A and for seam welding the alloy Br.NBT. Orig. art. has: 3 tables and 6 graphs.

SUB CODE: 11/ SUBM DATE: 25Jun64/ ORIG REF: 005

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ACC NR: AP6021057 (A, N) SOURCE CODE: UR/0292/66/000/003/0021/0023

AUTHOR: Zakharov, M. V. (Doctor of technical sciences); Putsykin, G. G. (Candidate of technical sciences); Stepanova, M. V. (Candidate of technical sciences); Vorontsova, L. A. (Engineer)

ORG: none

TITLE: Alloys for electric-machine commutators

SOURCE: Elektrotekhnika, no. 3, 1966, 21-23

TOPIC TAGS: electric machine, electric machine commutator, copper alloy

ABSTRACT: The results are reported of an experimental investigation of high-conductivity low-alloy coppers: Cu-Ni-Be, Cu-Ni-Ti, Cu-Cr-Zr, Cu-Cr-Mg, Cu-Cr-Be, Cu-Cr-Ti, Cu-Co-Be, Cu-Cr-Al, Cu-Cr-Cd, Cu-Fe; for control purposes, copper M1, a copper-magnesium alloy, and Cu-Zr and Cu-Cr bronzes

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ACC NR: AP6021057

were also tested. The alloys were subjected to two treatments: (1) Water-quench hardening at 960—980C and tempering at 470—480C for 5 hrs; (2) The same hardening, then 50% workhardening, and then tempering at 470—480C for 4 hrs. Experimental curves and tabulated data show that: 1. By their hardness, wear resistance, heat resistance, and electric conductivity, the following alloys can be recommended for the commutators of electrical machinery operating at 350—500C: a chrome-zirconium bronze containing 0.25—0.5% Cr and 0.15—0.35% Zr (or its cheaper substitute, chrome-magnesium bronze) and a nickel-beryllium bronze containing 0.8—1.1% Ni and 0.15—0.25% Be. The second thermal treatment is recommended for these bronzes. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 11, 09 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 005

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ACC NR: AP7002866 SOURCE CODE: UR/0149/66/000/006/0139/0141

AUTHORS: Stepanova, M. V.; Makarov, I. I.

ORG: Moscow Institute for Steel and Alloys. Department of Nonferrous, Rare, and Rare Earth Metals (Moskovskiy institut stali i splavov. Kafedra metallovedeniya tsvetnykh, redkikh i redkozemel'nykh metallov)

TITLE: The influence of cold deformation on the onset of recrystallization temperature in aging metals

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1966, 139-141

TOPIC TAGS: alloy, aluminum alloy, copper alloy, zirconium containing alloy, metal recrystallization/ D16 alloy, AV alloy

ABSTRACT: The effect of cold deformation of alloys D16 and AV and of two Cu-Zr bronzes with 0.09 and 0.26% Zr, respectively, on the recrystallization temperature of these alloys was studied. The study supplements the results of M. V. Stepanova and V. Ye. Kogilevskaya (Izv. VUZ, Tsvetnaya metallurgiya, No. 6, 1963). The metal specimens were hot rolled, annealed, and then cold rolled. The recrystallization temperature (fixed by x-ray techniques) was determined as a function of the degree of cold deformation. The experimental results are shown graphically (see Fig. 1). It is concluded that the formation of a supersaturated solid solution, prior to cold deformation, and its decomposition during recrystallization annealing may be the cause

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UDC: 620.181

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ACC NR: AP7002866

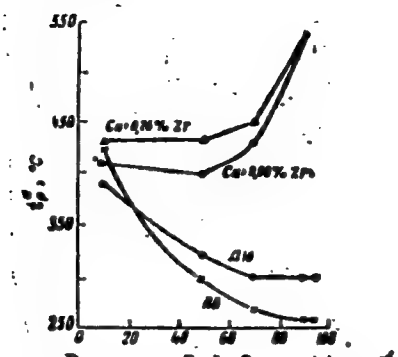

Fig. 1. Dependence of the recrystallization temperature on the degree of cold deformation during cold rolling

for the observed increase in the recrystallization temperature as a result of cold deformation. Orig. art. has: 1 table and 3 graphs.

SUB CODE: 11/ SUBM DATE: 29Sep65/ ORIG REF: 006

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

TASHMUKHAMEDOV, I.; ZAKHAROV, V.A.; KARAKOZOVA, A.A.; STEPANOVA, M.Ya.; AMEDZHANOV, A.

Prescriptions filled at pharmacies of the therapeutic institutions of Tashkent. Apt. delo 14 no.5:72-76 S-O '65.

(MIRA 18:11)

1. Tashkentskiy farmatsevticheskiy institut.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.Yu.

Fusarioses of annual legumes in Leningrad Province. Bot. zhur. 47 no.7:1010-1015 Jl '62. (MIRA 15:9)

1. Vsesoyuznyy institut zashchity rasteniy, Leningrad.
(Leningrad Province—Fusarium)
(Leningrad Province—Legumes—Diseases and pests)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, M.Yu.

Fusarium infection of annual legume seeds. Zashch. rast. ot vred. i bol. 8 no.7:17-18 Jl '63. (MIRA 16:9)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ZAKHAROVA, T.I.; STEPANOVA, M.Yu.

Fluorescent method of determining the viability of spores.
Zashch. rast. ot vred. i bol. 9 no.2:45-46 '64.
(MIRA 17:6)

1. Vsesoyuznyy institut zashchity rasteniy.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

KRYUKOV, Yu.B.; BUTYUGIN, V.K.; LIBEROV, L.G.; STEPANOVA, N.A.; BASHKIROV, A.N.

Synthesis of butyl alcohol containing radioactive carbon C^{14}. Trudy Inst.nefti 12:299-303 '58. (MIRA 12:3)
(Butyl alcohol) (Carbon--Isotopes)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

112-57-8-18003

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 8, p 312 (USSR)

AUTHOR: Stepanova, N. A.

TITLE: Methods of Measuring Electrical Fluctuations (Metody izmereniya elektricheskikh fluktuatsiy)

PERIODICAL: Sb. nauch. tr. Tsentr. n.-i. in-ta svyazi (Collection of Scientifid Transactions of the Central Scientific-Research Institute of Communications), Moscow, Svyaz'izdat, 1956, pp 136-155

ABSTRACT: Indicated are three methods of measuring internal noise in electronic equipment: direct, comparative, and modulation. Also indicated are sources of fluctuation noise that are used for noise generators needed for measuring by the two latter methods. Simplified circuits of various noise generators are presented. Bibliography: 11 items.

N. Ye. L.

Card 1/1

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

AKULOV, V.V., kand.geogr.nauk; BABUSHKIN, L.N., doktor geogr.nauk; ORESHINA, L.M.; SKVORTSOV, Yu.A., doktor geol.-mineral.nauk; PETROV, M.P., kand.geol.-mineral.nauk; CHERNEVSKIY, N.N.; KRYLOV, M.M., doktor geol.-mineral.nauk; KHASANOV, A.S.; BEDER, B.A., kand.geol.-mineral.nauk; KIMBERG, N.V., kand. sel'skokhoz.nauk; SUCHKOV, S.P.; GLAGOLEVA, A.F.; PERVUSHINA-GROSHEVA, A.N.; VERNIK, R.S., kand.biol.nauk; MOMOTOV, I.F.; GRANITOV, I.I., kand.biol.nauk; SALIKHBAYEV, Kh.S., kand. biolog.nauk; STEPANOVA, M.A., kand.biolog.nauk; YAKHONTOV, V.V.; DAVLETSHINA, A.G., kand.biolog.nauk; MURATBEKOV, Ya.M., kand. biolog.nauk [deceased]; KUKLINA, T.Ye.; KORZHENEVSKIY, N.L., red. [deceased]; GORBUNOV, B.V., kand.geologo-mineral.nauk, red.; DONSKOY, P.V., red.; YAKOVENKO, Ye.P., red.izd-va; GOR'KOVAYA, Z.P., tekhn.red.

[Materials on the productive forces of Uzbekistan] Materialy po proizvoditel'nym silam Uzbekistana. Tashkent. No.10. [Natural conditions and resources of the lower reaches of Amu-Darya; Kara-Kalpak A.S.S.R. and Khoresm Province of the Uzbek S.S.R.] Prirodnye usloviia i resursy nizov'ev Amu-Dar'i; Kara-Kalpakskaia ASSR i Khorezmskaia oblast' UzSSR. 1959. 351 p. (MIRA 13:5)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Sovet po izucheniyu proizvoditel'nykh sil. 2. Chleny-korrespondenty AN UzSSR (for Yakhontov, Korzhenevskiy).
(Amu-Darya Valley--Physical geography)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N.A.

First Republic conference on problems in the over-all utilization of Uzbekistan waters. Uzb.biol.zhur. no.2:69 '60. (MIRA 14:5)
(UZBEKISTAN--WATER RESOURCES DEVELOPMENT)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N.A.

Interrepublic conference on the pond fish culture. Uzb. biol. zhur. no.2:60 '61. (MIRA 14:5)
(SOVIET CENTRAL ASIA—FISH CULTURE)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N. A.

"The biological principles of the treatment and prophylaxis of lambliasis." Acad Med Sci USSR. Alma-Ata, 1956. (DISSERTATION For the Degree of Candidate in BIOLOGICAL SCIENCE.)

Knizhnaya letopis'
No 33, 1956, Moscow

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ROYZEN, I.S.; POZAMANTIR, A.G.; MEDVEDEVA, V.S.; BYTENSKIY, V.Ya.; STEPANOVA, N.A.; SAPOZHKOVA, R.A.

Investigating the danger of the explosion of acetylating mixtures. Bezop. truda v prom. 8 no.10:45-47 O '64. (MIRA 17:11)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

ZAKHAROVA, M.S.; BAYEVA, V.A.; STEFANOVA, N.A.

Titration of diphtheria and tetanus antitoxins in small quantities of blood. Zhur.mikrobiol.,epid.i immun. 40 no.12:68-72 D '63.
(MIRA 17:12)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N.B.; KHURGIN, Yu.I.; POROSHIN, K.T.

Polycondensation of ethyl glycinate in the presence of ethyl alcohol. Izv. AN SSSR. Otd. khim. nauk no. 1:160-162 Ja '61. (MIRA 14:2)

1. Institut organicheskoy khimii im.N.D. Zelinskogo AN SSSR.
(Glycine)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STOLYAROV, Ivan Karpovich; STEPANOVA, N.D., red.; KHLOBORDOV, V.I., tekhn. red.

[Communists in the most important sectors of production] Kommunisty na reshaiushchikh uchastkakh proizvodstva. Krasnodar, Krasnodarskoe knizhnoe izd-vo, 1961. 39 p. (MIRA 16:10)

1. Sekretar' Beloglinskogo rayonnogo komiteta KPSS (for Stolyarov).
(Communist Party of the Soviet Union--Party work)
(Belaya Glina District--Collective farms)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

AUTHORS: Krykov, Yu.B., Butyugin, V.K., Liberov, L.G., Stepanova, N.D. and Bashkirov, A.N.

TITLE: The use of radioactive carbon for the investigation of the behaviour of methane under conditions of the synthesis of hydrocarbons from CO and H_2 on iron catalysts. (Ispol'zovaniye radioaktivnogo ugleroda dlya issledovaniya povedeniya metana v usloviyakh sinteza uglevodorodov iz CO i H_2 na zheleznykh katalizatorakh). 65-6-4/13

PERIODICAL: "Khimiya i Tekhnologiya Topliva i Masel" (Chemistry and Technology of Fuels and Lubricants) 1957, No.6, pp.26-33 (USSR).

ABSTRACT: A critical survey of the literature on the problem of the role of methane in the synthesis of hydrocarbons from CO and H_2 is given. An experimental investigation of the above problem was carried out using methane containing radioactive C^{14}. Radioactive methane was obtained by hydrogenating $C^{14}O_2$ over an $Bi-Al_2O_3$ catalyst and $C^{14}O_2$ was obtained by decomposing a mixture of $BaCO_3 + BaC^{14}O_3$ with sulphuric acid. The apparatus used for the synthesis of hydrocarbons is described and shown in a diagram. The catalyst used was developed in the Petroleum Institute of

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

The use of radioactive carbon for the investigation of the behaviour of methane under conditions of the synthesis of hydrocarbons from CO and H_2 on iron catalysts. (Cont.) 65-6-4/13
reaction of isotope exchange with carbon monoxide, carbon dioxide and hydrocarbons.

There are 5 tables, 1 figure and 29 references, including 10 Slavic.

ASSOCIATION: Petroleum Institute of the Academy of Sciences of the U.S.S.R. (Institut Nefti AN SSSR).

AVAILABLE:

Card 3/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N. V.

AUTHORS: Kryukov, Yu. B., Butyugin, V. K., Liberov, L. G., 62-11-25/29
Stepanova, N. D., Bashkirov, A. N.

TITLE: Synthesis of the Butyl Alcohol Containing the Radioactive Carbon Isotope C14 (Sintez butilovogo spirta, soderzhashchego radioaktivnyy izotop ugleroda C^{14})

PERIODICAL: Izvestiya AN SSSR, Otdel.Khim.Nauk, 1957, Nr 11, pp. 1404-1406 (USSR)

ABSTRACT: Here a new method for the synthesis of butyl alcohol, which is tagged by radio-carbon C^{14}, is introduced. This method is characterized by simplicity and a high output of special product. The method consists of two phases: magnesium-organic synthesis of butyric acid with elimination of the latter in the form of sodium-butyrate and the restoration of the salt by lithiumaluminumhydride. The method can be applied for the synthesis of different alcohols containing the radio-carbon C^{14}. It is shown that a synthesis of the tagged butyl alcohol is also possible without preceding elimination of butyric acid by means of immediate restoration of the magnesium-organic complex $C_3H_7C(=O)-OMgBr$ by lithiumaluminumhydride. There are 2 Slavic references.

ASSOCIATION: Petroleum Institute of the AN USSR (Institut nefti Akademii

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APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

KRYUKOV, Yu. B., BASHKIROV, A. N., BUTYUGIN, V. K., LIBEROV, L. G., and STEPANOVA, N. D.
(Petroleum Institute AS USSR)

"Intermediate Compounds in the Synthesis of Hydrocarbons and Oxygen-Containing Compounds of Carbon Monoxide and Hydrogen on Iron Catalysts." p. 58.

[illegible] and Radiation in Chemistry, Collection of Papers of [illegible] [illegible] Conf. on Use of Radioactive and Stable Isotopes and [illegible] in National Economy and Science, Moscow, [illegible]

[illegible] volume [illegible] reports of [illegible] Use of Radioactive and Stable [illegible] and Radiation [illegible] National [illegible] by Acad. [illegible] of [illegible] [illegible]

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

Stepanova, N. D.

AUTHORS: Kr[illegible]kov, Yu. B., Bashkirov, A. N., Butyugin, V. K., Liberov, L. G., Stepanova, N. D. 62-58-5-22/27

TITLE: Conversions of Butylene on the Conditions of Synthesis of CO and H_2 by Way of Molten Iron Catalysts (Prevrashcheniya butilena v usloviyakh sinteza iz CO i H_2 nad plavlenymi zheleznymi katalizatorami)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 5, pp. 642-644 (USSR)

ABSTRACT: The present report is a trial of investigating the ways of conversion of the olefins forming in the process of the synthesis of the hydrocarbons and of the oxygen-containing compounds of CO and H_2. Butylene marked by means of the carbon isotope C^{14} in the state (polozhenii) 1 served as indicator of the behavior of olefin under the conditions given by the synthesis. The experiment has shown that butylene does not participate in the formation of alcohols, as well, as in the formation of highest hydrocarbons (by way of C_9) neither and that it is no intermediate product. Butylene can react with CO and H_2 under the investigated conditions by producing a C_5-hydrocarbon. It also submits to dehydration, oxidation and hydro-

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

Conversions of Butylene on the Conditions of Synthesis of CO and H_2 by Way of Molten Iron Catalysts 62-58-5-22/27

cracking. There are 1 figures, 1 table, and 11 references, 9 of which are Soviet.

ASSOCIATION: Institut nefti Akademii nauk SSSR (Petroleum Institute AS USSR)

SUBMITTED: January 2, 1958

1. Hydrogen isotopes--Synthesis 2. Carbon monoxide--Synthesis
3. Ethylenes--Chemical reactions 4. Butylene--Chemical reactions
5. Carbon isotopes (Radioactive)--Applications

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

2(5)119 6 27/56

AUTHORS: Kryukova, Yu. B. Bashkirov, A. N., Batygin, V. K., Liberov, L. G. Stepanova, N. D.

TITLE: On the Uniformity of the Mechanism of Synthesis of Hydrocarbons and Oxygen Containing Compounds of CO and H_2 (O yedinstve mekhanizma sinteza uglevodorodov i kislorodsoderzhashchikh soyedineniy iz CO i H_2)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 119, № 6 pp. 1152-1155 (USSR)

ABSTRACT: For the synthesis of CO and H_2 different schemes were proposed. According to them both processes mentioned in the title proceed independent of each other in two different ways. (Refs 1-5). Contrary to this fact experimental data exist, which permit the assumption that a uniform mechanism exists in introducing the process of synthesis and in the structure of carbon chains of the aliphatic compounds from CO under the influence of hydrogen. In order to prove that, the authors have experimentally investigated the ways of conversion of alcohols under the real conditions of synthesis. If the primary products of syn-

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

20-11-6-27/56

On the Uniformity of the Mechanism of Synthesis of Hydrocarbons and Oxygen Containing Compounds of CO and H_2

is guaranteed. The further growth takes place thanks to the continuous connection of C_1 to the growing complexes C_2, C_3, C_4 and so on. Also the molecules CO and H_2 can be taken up and a further hydration of the growing complexes until the formation of a stable compound (aldehyde, alcohol, olefin, or paraffin) seems to be not impossible. There are 2 figures and 17 references, 5 of which are Soviet.

ASSOCIATION: Institut goryuchikh iskopayemykh SSSR (Fuel Institute AS USSR)

PRESENTED: December 24, 1955, by A. V. Topchiyev, Member, Academy of Sciences, USSR

SUBMITTED: December 24, 1955

Card 3/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

STEPANOVA, N. D.

S/195/60/001/002/006/010
B004/B067

AUTHORS: Kryukov, Yu. B., Bashkirov, A. N., Liberov, L. G., Butyugin, V. K., Stepanova, N. D., Kagan, Yu. B.

TITLE: Conversions of Iron Carbide Under the Conditions of the Synthesis of Hydrocarbons From Carbon Monoxide and Hydrogen

PERIODICAL: Kinetika i kataliz, 1960, Vol. 1, No. 2, pp. 274 - 281

TEXT: The present paper was presented at the All-Union Conference on Organic Catalysis in November 1959. The authors attempted to explain the part played by carbides as intermediate compounds in the synthesis of hydrocarbons. They used a standard iron catalyst with chromium admixture, which was reduced at 1000°C and activated at 300°C and 20 atm with the initial gas mixture $CO + H_2$ (1 : 1), which contained $C^{14}O$. The catalyst, enriched with radioactive iron carbide, was then treated with pure $CO + H_2$. The radioactivity of the products formed was then measured. The authors found that mainly the following reactions took place in iron

Card 1/2

Conversions of Iron Carbide Under the Conditions of the Synthesis of Hydrocarbons From Carbon Monoxide and Hydrogen

S/195/60/001/002/006/010
B004/B067

carbide (90%): hydrogenation to methane, exchange of C isotopes between CO and carbide. The rate of these reactions is low as compared to that of the synthesis reaction. Of 3000 CO molecules, only one exchanges its carbon; of 3000 CH_4 molecules, only five are formed by carbide hydrogenation. Hence, only 0.03% of the hydrocarbons with C > 1 was formed under the action of carbide. These data rebut the hypothesis according to which carbide products are intermediates in hydrocarbon synthesis from CO and H_2. There are 2 figures, 2 tables, and 22 references: 13 Soviet, 5 US, 1 British, and 3 German.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis of the AS USSR)

SUBMITTED: January 23, 1960

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

33496

S/195/61/002/005/023/027
E040/E185

5.1190

AUTHORS: Kryukov, Yu.B., Bashkirov, A.N., Liberov, L.G., Butyugin, V.K., and Stepanova, N.D.

TITLE: On the mechanism of chain growth in the synthesis of organic compounds from CO and H_2 on iron catalysts

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 780-787

TEXT: A brief survey of the previous investigations of the synthesis of organic compounds from CO and H_2 mixtures on cobalt and iron catalysts showed that the mechanism of the chain growth can be visualised either as 1) condensation of oxygen-containing complexes, with separation of water, or 2) the growth of the carbon chain can be assumed as being preceded by the splitting off of oxygen atoms from the carbon monoxide molecule and a subsequent chain growth by the mechanism of polymerisation of methyl radicals. The experimental evidence at present available appears to be somewhat contradictory and for this reason a study was made of the role played in the above synthesis by oxygen-free intermediate complexes of the methyl and hydrocarbon type

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APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

On the mechanism of chain growth...

radicals. The study was made with the help of radioisotope tracer technique using carbon monoxide labelled with C^{14} carbon (9000 pulse/min per ml). In the tests, a mixture of $C^{14}O + H_2$ (in the 1:1 by volume ratio) was passed over freshly prepared iron catalyst heated to 295 °C, the reaction was allowed to proceed for various periods and the products were then separated. The radioactivity of the separated hydrocarbons was then plotted against the reaction time and the number of carbon atoms in the synthetised hydrocarbons. The results obtained indicated that both the condensation and polymerisation mechanisms are involved in the synthesis of the products. The actual mechanism prevailing at any stage of the reaction was found to depend on the experimental conditions. A general scheme was formulated for the various reactions that can occur when a stream of carbon monoxide/hydrogen mixture is passed over iron catalyst heated to about 300 °C.

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"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

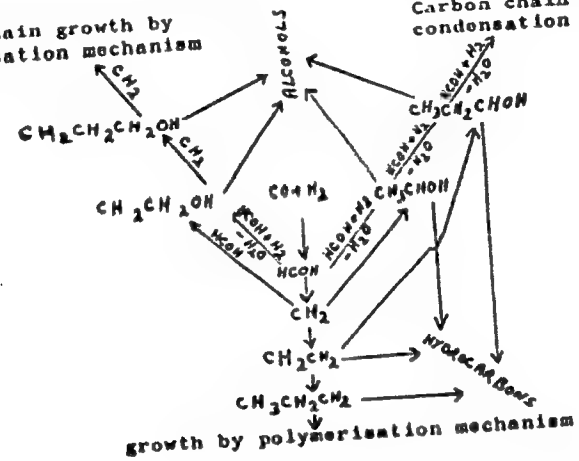
33496

S/195/61/002/005/023/027
E040/E185

On the mechanism of chain growth ...

Carbon chain growth by polymerisation mechanism

Carbon chain growth by condensation mechanism



Scheme 2

Card 3/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220003-9

33496
S/195/61/002/005/023/027
On the mechanism of chain growth E040/E185

There are 4 figures, 2 schemes and 20 references: 11 Soviet-bloc and 9 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.12: E.J. Gibson, Chem. and Ind., 649, 1957.
Ref.15: G. Blyholder, P.H. Emmett, J.Phys.Chem., v.63, 962, 1959.
Ref.17: G. Blyholder, P.H. Emmett, J.Phys.Chem., v.64, 470, 1960.
Ref.18: W.K. Hall, R.J. Cokes, P.H. Emmett, J.Amer.Chem.Soc., v.82, 1027, 1960.

ASSOCIATION: Institut neftekhimicheskogo sinteza AN SSSR (Institute of Petrochemical Synthesis, AS USSR)

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1. Leningradskiy tekhnologicheskiy institut im. Lensoveta, kafedra analiticheskoy khimii.

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Sel. Khoz-vo, Tadzhik, 1948, No 6, pp36-39, in
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2. USSR (600)

4. Cattle - Tajikistan

7. Summer stall care of cattle in the valley regions of Tajikistan. Soob. IFAN SSSR no. 27, 1950.

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1. Otdel biokhimii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

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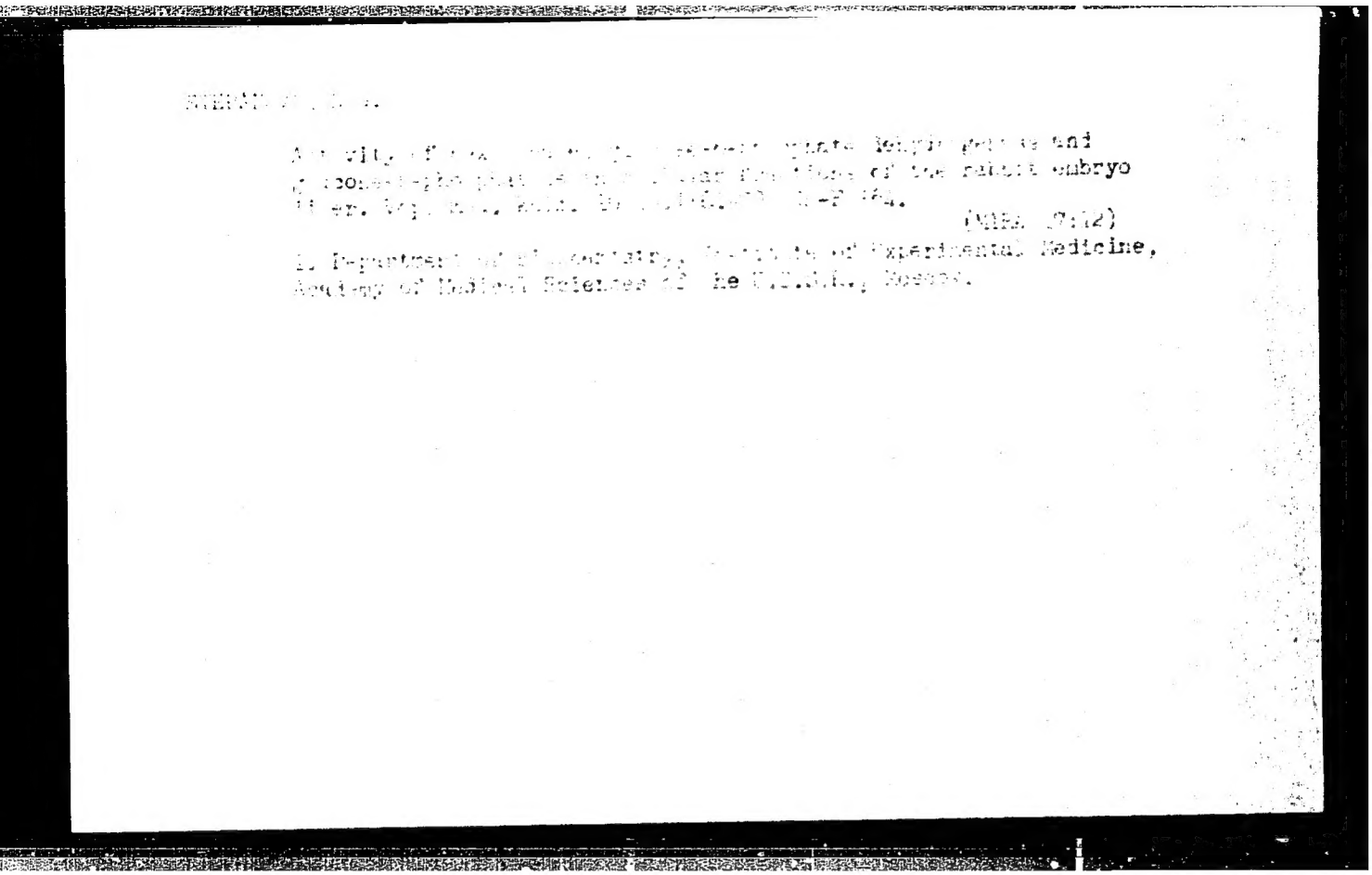

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